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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Pieter Johannes Meintjes

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EXAMINER

CLEMENT, MICHELLE RENEE

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,050	Applicant(s) MEINTJES, PIETER JOHANNES	
	Examiner Michelle (Shelley) Clement	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/9/08 have been fully considered but they are not persuasive. In response to applicant's arguments concerning the Gotman reference, it is noted that Gotman discloses a self-aligning bearing assembly comprising the claimed elements of the current application. Notably, a shaft having a first longitudinal axis, a housing defining a bore for rotatably and concentrically receiving the shaft, the bore having a second longitudinal axis, a bearing assembly located inside the housing and surrounding the shaft. In response to applicant's contention that Gotman does not include cam rings, because "items '20 and 30' are part of ball bearing B", it is noted that applicant also discloses cam rings (28) as part of the bearing assembly (18). Initially it is noted that applicant has not disclosed the "cam ring" as being anything other than a ring having a cam surface. Furthermore, applicant shows the "cam surface" as being nothing more than a curved surface on the ring. It is noted that the rings (20 and 30), of Gotman, comprise a curved surface and are equivalent and therefore comprise the cam ring portion of the bearing assembly. Gotman further discloses that the invention permits the bearing assembly to be self-positioned even though slightly out of alignment with EITHER the shaft OR the housing, or both. The only possible way for the bearing assembly to be out of alignment with the shaft but not out of alignment with the housing is for the shaft and the housing to be out of alignment (i.e. the shaft is biased in a direction transverse the longitudinal axis of the housing). In response to applicant's argument that the references fail to show certain features of applicant's invention because the O-rings of Gotman are made of a certain material, it is noted that the features upon which applicant relies (i.e., any particular material for the O-rings) are not recited in the rejected

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claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Gotman discloses the O-rings may be "resiliently deformed" (i.e. deformed without permanent deformation), i.e. the O-rings may be subjected to a compression force and will return to their previous shape. Applicant has not claimed nor disclosed a material for the "compressible O-rings" nor has applicant claimed or disclosed the degree of compressibility for the O-rings, thereby ANY amount of compressibility satisfies the claim recitation "compressible". Additionally the [a) statements of intended use or field of use, b)"adapted to" or "adapted for" clauses, c) "wherein" clauses, or d) "whereby"] clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

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Applicant's remaining arguments have been considered but are moot in view of the new ground(s) of rejection as necessitated by applicant's amendments.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3, and 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "the gun". There is insufficient antecedent basis for this limitation in the claim in that a gun has not been previously positively recited. The claim recites "a trunnion assembly FOR a gun" it is not clear whether applicant intends the claims to encompass the combination of the trunnion assembly and the gun or the trunnion assembly for use with the gun in that applicant initially claims the assembly **for use** with the gun then later recites effects of the gun such as the "when the shaft is biased in a direction [] by an impetus caused by a rearward movement of **the gun**...". Appropriate correction is required.

5. Claim 9 recites the limitation "one of the cam rings moves towards its O-ring", it is not clear what O-ring is "its O-ring" since the claims have not recited that any particular O-ring belongs to a particular cam ring.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. (UK 1,493,632) in view of Gotman (US Patent # 4,699,528). Barker et al. disclose a trunnion assembly for a gun comprising a trunnion shaft having a first longitudinal axis, a housing defining a bore for rotatably and concentrically receiving the trunnion shaft, the bore having a second longitudinal axis and a bearing assembly located inside the housing and surrounding the trunnion shaft. The longitudinal axis of the shaft being movable out of alignment with the longitudinal axis of the bore when the shaft is biased in a direction transverse the first and second longitudinal axes by an impetus caused by a rearward movement of a gun when the gun is fired, the bearing assembly allowing rotation of the shaft in the bore while also allowing movement of the first longitudinal axis of the shaft out of alignment with the second longitudinal axis of the bore. Barker et al. further disclose that the bearing assembly may be of any conventional type. Although Barker et al. does not expressly disclose the specific bearing assembly, Gotman does. Gottman discloses an assembly comprising a shaft (reference 5) a housing defining a bore (reference 11) for rotatably and concentrically receiving the shaft, a bearing assembly located inside the housing and surrounding the shaft, the bearing assembly includes a re-aligning means for re-aligning a longitudinal axes of the shaft and the bore after movement out of alignment (abstract). The re-alignment means ball bearing assembly having at least one cam ring (references 20 & 30) disposed between a resiliently compressible O-ring (references 35 & 40) and a ball bearing (reference 25). The ball bearing assembly is located inside the bore of the housing and surrounds the shaft; there is a first and second cam ring and a first and second O-ring. Wherein the ball-bearing assembly includes a central ball bearing (reference 25) and two

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resiliently compressible O-rings (reference 35 & 40) disposed on opposite sides of the ball bearing, a cam ring (reference 20, 30) disposed between each O-ring and the ball bearing, each cam ring having a cam surface (reference 23, 33) that has the ability of abutting an outer surface of the ball-bearing. The O-rings are each located in an O-ring retainer (surfaces at 17 and 45). The ball bearing (reference 25) is disposed centrally between the first and second cam rings (references (20 & 30)), the first and second O-rings are disposed on opposite sides of the ball bearing, and the first and second cam rings are disposed between the ball bearing and the first and second O-rings. Each cam ring defines a cam surface (references (23 and 33) for abutting an outer surface of the ball-bearing (reference 25). It is inherent by the geometry and physics of the assembly that when the first longitudinal axis of the shaft moves out of alignment with the second longitudinal axis of the bore, one of the cam rings moves towards an O-ring to compress the O-ring. It is also inherent, according to physics and the disclosure of Gotman that the O-rings 35 and 40 are of a material "resiliently deformable", that the compressed O-ring will return to its original shape after a biasing force has been neutralized. The cam ring has a cam surface that abuts an outer surface of the ball bearing. The cam surface (references 23 and 33) is rounded. Because both Barker et al. and Gotman teach shafts and bearings for supporting the shaft, it would have been obvious to one skilled in the art to substitute one known bearing assembly for the other to achieve the predictable result of providing a bearing assembly that was self-aligning as suggested by Barker et al. The [a) statements of intended use or field of use, b) "adapted to" or "adapted for" clauses, c) "wherein" clauses, or d) "whereby"] clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that

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of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. and Gotman as applied to claim 1 above, and further in view of Dabrasky (US Patent # 1,742,436). Although neither Barker et al. nor Gotman expressly disclose the bearing assembly including a toroidal-type roller bearing assembly, Dabrasky does. Dabrasky teaches a trunnion assembly including a bearing assembly including a toroidal-type roller bearing assembly. Gotman discloses that two bearing assemblies can be utilized. All the component parts are known in the references. The only difference is the combination of the "old elements" into a single device. Thus it would have been obvious to one having ordinary skill in the art to include the toroidal-type roller bearing with the assembly as disclosed by Barker et al. in view of Gotman, since the operation of the toroidal-type roller bearing is in no way dependent on the operation of the other equipment of the assembly and a toroidal type roller bearing could be used in combination with a

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standard assembly to achieve the predictable results of increase the assemblies ability to withstand thrust loads.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle (Shelley) Clement/
Primary Examiner, Art Unit 3641